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ABSTRAK

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**HUBUNGAN ASUPAN KARBOHIDRAT DAN AKTIVITAS FISIK
DENGAN KADAR GLUKOSA DARAH PUASA PADA PENDERITA
DIABETES MELITUS TIPE 2 DI WILAYAH KERJA PUSKESMAS
MANGKUBUMI TAHUN 2025**

Diabetes melitus adalah penyakit metabolik yang terjadi karena kadar glukosa darah meningkat akibat adanya gangguan sekresi insulin. Penelitian ini bertujuan menganalisis hubungan antara asupan karbohidrat dan aktivitas fisik dengan kadar glukosa darah puasa pada penderita diabetes melitus tipe 2. Desain penelitian *cross sectional* dengan sampel 72 responden menggunakan metode *quota sampling*. Analisis data yang digunakan yaitu uji *chi square*. Hasil penelitian menunjukkan mayoritas responden berjenis kelamin perempuan (68,1%), dan berusia 50-69 tahun (76,4%). Mayoritas responden berada pada asupan karbohidrat berlebih (41,7%), aktivitas fisik sedang (45,8%), dan kadar glukosa darah tidak terkontrol (61,1%). Hasil bivariat menunjukkan asupan karbohidrat ($p=0,018$) terdapat hubungan signifikan dengan kadar glukosa darah puasa, sedangkan aktivitas fisik tidak terdapat hubungan yang signifikan dengan kadar glukosa darah puasa ($p=0,128$). Asupan karbohidrat memiliki hubungan yang signifikan dengan kadar glukosa darah, sedangkan aktivitas fisik tidak berhubungan signifikan dengan kadar glukosa darah pada penderita DM tipe 2.

Kata Kunci: aktivitas fisik, diabetes melitus tipe 2, glukosa darah, karbohidrat

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ABSTRACT

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***THE RELATIONSHIP BETWEEN CARBOHYDRATE INTAKE AND
PHYSICAL ACTIVITY WITH FASTING BLOOD GLUCOSE LEVELS IN
PATIENTS WITH TYPE 2 DIABETES MELLITUS IN THE WORK AREA
OF THE MANGKUBUMI HEALTH CENTRE IN 2025***

Diabetes mellitus is a metabolic disease that occurs because blood glucose levels increase due to impaired insulin secretion. The purpose of this study was to analyse the relationship between carbohydrate intake and physical activity with fasting blood glucose levels in patients with type 2 diabetes mellitus at Puskesmas Mangkubumi in 2025. We used a cross sectional design with 72 subject selected by quota sampling method. Chi square is used to data analyse. The results showed that the majority of respondents were female (68.1%), and aged 50-69 years (76.4%). The majority of respondents were in excess carbohydrate intake (41.7%), moderate physical activity (45.8%), and uncontrolled blood glucose levels (61.1%). Bivariate results showed carbohydrate intake ($p=0.018$) had a significant relationship with fasting blood glucose levels, while physical activity had no significant relationship with fasting blood glucose levels ($p=0.128$). Carbohydrate intake has a significant relationship with blood glucose levels, while physical activity is not significantly related to blood glucose levels in patients with T2DM.

Keywords: physical activiy, T2DM, blood glucose, carbohyrate